Prostitution and Sex Crimes

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Independent Institute Working Paper Number 50

April 8, 2004

Abstract: In this paper I examine the hypothesis that the frequency of rape is increased when another source of sex (prostitution) is limited or unavailable. To test this theory I regressed the rape rate in available OECD countries against a proxy for the availability of prostitution and, to remove the general propensity for violence in the society, against the homicide rate and the availability of prostitution. The one variable regression model was anti-correlated with borderline significance. In the multiple regression model the rape rate was shown to be correlated with the homicide rate and anti-correlated with the availability of prostitution. Both relationships were at above the 95% confidence level. It is estimated that if prostitution were legalized in the United States, the rape rate would decrease by roughly 25% for a decrease of approximately 25,000 rapes per year.

In this paper I examine the hypothesis that rape is caused, at least in part, by the lack of other available sexual outlets. This could be at the time of the rape or due to attitudes created in the rapist earlier in life. This hypothesis is tested by regressing the rape rate in available OECD countries against a proxy for the availability of sex through prostitution. To measure the availability of prostitution in a given country, I divide the monthly per capita income by an estimate of the low-end price of a prostitute in a given country. The data for prostitution prices comes for the World Sex Guide ([www.worldsexguide.com)](www.worldsexguide.com), which includes data about prostitution prices reported by men who have hired prostitutes all over the world.

The one variable model gives the following equation:

$$R = 12.414 - 0.1087*I$$

where R is the rape rate per 100,000 people and I is the monthly income in units of prostitution encounters. The statistical significance of the constant is (t = 4.709) and of I is (t = -1.664) making this result significant beyond the 90% confidence level. I also did a multiple regression analysis of the rape rate against the homicide rate and the availability of sex through prostitution to try and remove a general propensity for violence in a country. The results follow:
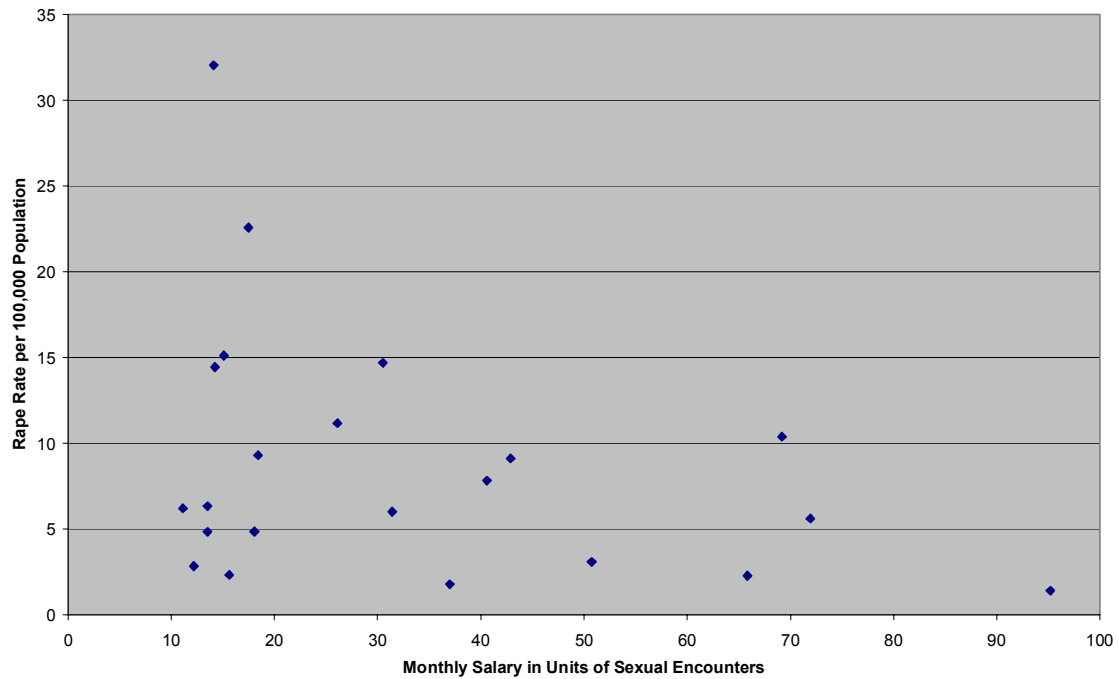
$$R = 7.7022 + 1.4533*H - 0.1216*I$$

where H is the homicide rate per 100,000 in the country. The constant has a t-stat of 2.6799, H has a t-stat of 2.7222 and I has a t-stat of –2.1331 making them all statistically significant beyond the 95% confidence level. The two "independent" variables are statistically independent with a t-stat of 0.3749.

There are, of course, many problems with this data. Rape is a crime that regularly goes unreported and what is considered rape in one countries data set may not be considered rape in another. The homicide rate also suffers from being defined differently in different countries – I have corrected this to the best of my abilities by using multiple data sets. Given all of these problems, the analysis seems to support the hypothesis that the rape rate could be lowered if prostitution was more readily available. This would be accomplished in most countries by its legalization. In the United States where prostitution is illegal, the low-end price for most prostitutes is about $200 and the monthly per capita income is $2,820. In Amsterdam, Netherlands where prostitution is legal the price is $30. If prostitution were legalized in the United States it is rational to assume that prices would resemble those in the Netherlands, this would result in an I of 80 and a decrease in the rape rate of 10 per 100,000. The population of the United States if roughly 275 million so this should result is a decrease of approximately 25,000 rapes per year.

COUNTRY	RAPE RATE	SEX/MONTH	HOMICIDE RATE
Austria	6.35	13.51	1.97
Belgium	7.83	40.58	2.72
Czeck Republic	4.85	13.51	2.71
Denmark	9.32	18.40	4.03
Finland	11.18	26.09	0.71
France	14.45	14.23	3.70
Germany	9.13	42.88	3.37
Greece	2.29	65.82	2.75
Ireland	6.01	31.40	1.41
Japan	1.78	37.00	1.10
Korea, South	4.86	18.05	1.99
Netherlands	10.39	69.18	10.87
Norway	15.12	15.09	2.66
Poland	6.21	11.14	3.40
Portugal	1.41	95.20	3.32
Slovakia	2.84	12.18	2.37
Spain	3.09	50.73	2.91
Sweden	22.58	17.47	10.38
Switzerland	5.61	71.92	2.25
Turkey	2.33	15.61	4.92
United Kingdom	14.69	30.50	2.75
United States	32.05	14.10	5.51

Rape Rate vs. Availability of Sex

References

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